NETGEAR® PROSAFE®

ProSafe® 24- and 48-port Gigabit Stackable Smart Switches

Data Sheet

GS728TS, GS728TPS, GS752TS and GS752TPS

2nd Generation Gigabit Stackable Smart Switches Enhance Scalability and Network Convergence for Growing Businesses

The ProSafe® Gigabit Stackable Smart Switch family is unique in delivering the scalability, reliability, and performance growing small and medium-sized businesses need in an affordable and easy-to-manage package. The NETGEAR Second Generation of these Stackable Smart Switches consists of 4 models in 28/52-port configuration with or without PoE option. They come with more port density and a total of 6 SFP ports for fiber connectivity. Among them, 2 are shared, and the other 4 are dedicated for either stacking or uplinks. This new generation of Stackable Smart Switches offers more flexibility and scalability that will make it easier and non-interruptive for growing businesses to expand their network capacity.

Stacking for Scalability and High Availability

The new generation of Stackable Smart Switches use 2 dedicated dual-purpose ports in the front of the switch for stacking or uplink. The stacking function offers a 10 Gbps, dual-ring, highly redundant stacking bus that carries intra-stack traffic and provide the highest level of resilience, allowing you to stack up to six switches or up to 300 10/100/1000 Mbps ports, forming a virtual chassis for easy management under a single IP address. This stacking technology also provides several high-availability features to ensure business continuity:

- Resiliency: Due to redundant stacking port connections, there is an automatic fail-over in case any switch in the stack fails, with rapid reconfiguration, thus preventing network downtime
- Hot-swappable: All switches in the stack are hot-swappable, and can be integrated or removed without disrupting the network

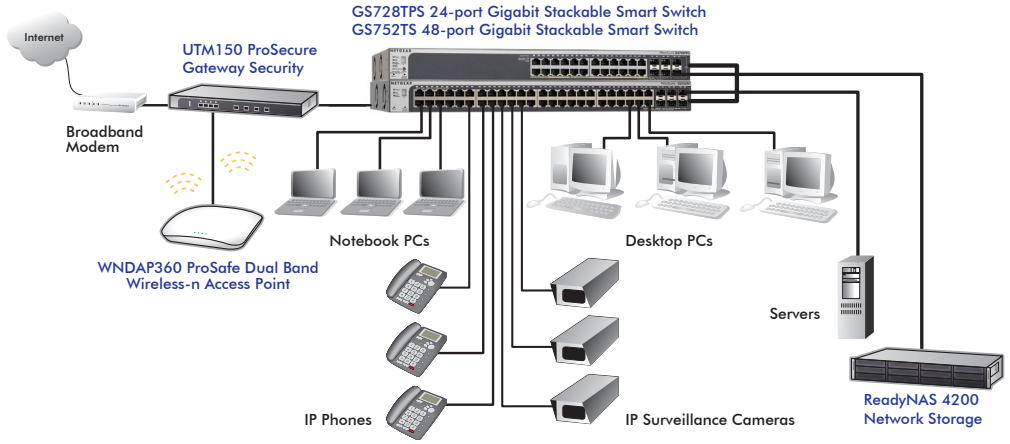
Comprehensive and Advanced Feature Sets

These Stackable Smart Switches come with a complete suite of advanced features for more robust security, higher quality of service and high availability. This switch is equipped with highly advanced features such as access control lists (ACL), static routing, rate limiting, IGMP snooping, and Dynamic VLAN assignment among others to provide a small and medium-sized business with a network that is geared for growth and new network applications.

Friendly to converged network with voice and video, the Stackable Smart Switches offers auto voice and auto video features that automatically configures QoS, security and VLAN settings for IP phones and IP cameras.

IPv6 Support

In order to accommodate the move by internet service providers to IPv6 addresses, the 2nd Generation of Gigabit Stackable Smart Switches expand the IPv6 support beyond management only to QoS, ACL and multicast. It means that your network will benefit from the IPv6 enhancements and is future-proofed.



24/7 TECHNICAL SUPPORT*

1-888-NETGEAR (638-4327)
Email: info@NETGEAR.com

NETGEAR PROSAFE LIFETIME WARRANTY*

1-year Tech Support

Manageability and Support

There are various easy and convenient ways to manage the Stackable Smart Switch. The new Stackable Smart Switches can be managed by the Smart Control Center software which comes free with the switch. With it, you can discover and manage all NETGEAR Smart Switches from a central location, conduct mass configuration and firmware upgrade. If you have other NETGEAR business products in your network, you can also use the NMS200, NETGEAR's management platform for discovery and configuration of all your NETGEAR products in the network. For peace of mind, these Stackable Smart Switches are backed by the NETGEAR ProSafe Lifetime Hardware Warranty and 1-year 24x7 Advanced Technical Support*.

Technical Specifications

- **Network Protocol and Standards Compatibility**
  - IEEE® 802.3 10BASE-T
  - IEEE 802.3u 100BASE-TX
  - IEEE 802.3ab 1000BASE-T
  - IEEE 802.3z 1000BASE-X
  - IEEE 802.3x full-duplex flow control
  - IEEE 802.3az (EEE)
  - IEEE 802.3af (DTE Power via MDI)
  - IEEE 802.3at (DTE Power via MDI Enhancements)
- **Interfaces**
  - GS728TS/GS752TS
    - 24/48 x 10/100/1000 Mbps copper ports
    - 2 x Combo ports to support 10/100/1000 Mbps copper ports or 1 G/100 M optical module
    - 2 x SFP slots (port 25 and 26) to support 1 G optical module
    - 2 x SFP slots (port 27 and 28) to support 1 G optical module (uplink) and 2.5 G stacking (via stacking cable AGC761)
  - GS728TPS/GS752TPS
    - 24/48 PoE-capable 10/100/1000 Mbps copper ports (8 PoE+ capable)
    - 2 x Combo ports to support 10/100/1000 Mbps copper ports or 1 G/100 M optical module
    - 2 x SFP slots (port 49 and 50) to support 1 G optical module
    - 2 x SFP slots (port 51 and 52) to support 1 G optical module (uplink) and 2.5 G stacking (via stacking cable AGC761)
  - Auto-sensing and auto-negotiating capabilities for all copper ports
  - Auto Uplink™ on all ports to make the right connection
- **Administrative Switch Management**
  - IEEE 8021.Q VLAN (256 groups, Static)
  - IEEE 802.1p Class of Service (CoS)
  - 8 hardware queues (1 is reserved for CPU; 7 queues are user configurable)
  - Port-based QoS
  - IEEE 802.3ad Static or Dynamic Link Aggregation (LACP)
  - IEEE 802.1D Spanning Tree Protocol
  - IEEE 802.1w Rapid Spanning Tree Protocol
  - IEEE 802.1s Multiple Spanning Tree Protocol
  - SNMP v1, v2c, v3
  - RFC 1213 MIB II
  - RFC 1643 Ethernet Interface MIB
  - RFC 1493 Bridge MIB
  - RFC 2131 DHCP client
  - IEEE 802.1x (RADIUS)
  - RADIUS accounting
  - IEEE 802.1x Dynamic VLAN Assignment
  - HTTPS/SSL: Secure HTTP GUI
  - Layer 3 (DSCP) Quality of Service (QoS)
  - TACACS+
  - Port-based security by locked MAC addresses
  - TCP/UDP-based priority mapping
  - IGMP snooping v1, v2, v3
  - MLD snooping
  - ACLs (MAC, IPv4, IPv6 and TCP/UDP based)
  - Storm control for broadcast, multicast and unknown unicast packets
  - Port-based ingress/egress rate limiting
  - SNTP
  - DNS
  - DoS and Auto DoS prevention
  - IPv6 management, multicast and QoS
  - Static Routing
  - DHCP snooping
  - Green Features:
    - EEE (Energy Efficient Ethernet) compliance
    - Lower power consumption during link-down or idle mode or with shorter cable length
  - Protocol and MAC-based VLAN
  - RMON group 1, 2, 3, 9
  - Private Enterprise MIB
  - Port mirroring – many-to-one
  - IEEE 802.3ab LLDP
  - LLDP-MED
  - Protected ports
  - Cable test
  - Smart Control Center discovery
  - Web-based configuration
  - Configuration backup/restore
  - Password access control
  - Firmware upgradeable
- **Performance Specifications**
  - Forwarding modes: Store-and-forward
  - Bandwidth (per unit): 56 Gbps for GS728TS/TPS, 104 Gbps for GS752TS/TPS
  - Stacking up to 6 switches or 300 ports per stack
  - Mix and match stacking supported on the GS7xxTS/GS7xxTPS family (GS728TS, GS752TS, GS728TPS and GS752TPS)
  - Stacking bandwidth: 5 Gbps (bidirectional)
  - Network latency: Less than 20 microseconds for 64-byte frames in store-and-forward mode for 1000
  - Mbps to 1000 Mbps transmission
  - Buffer memory: 2 MB
  - 128 Mbytes System DDR SDRAM (32Mbx16)
  - 32 Mbytes flash size
  - Address database size: 16 K media access control (MAC) addresses per system
  - Addressing: 48-bit MAC address
  - Number of VLANs: 256; Maximum VLAN ID: 4093
  - Number of 802.1p traffic classes: 7
  - Number of LAGs: 8
  - Number of static routes: 32
  - Number of routed VLANs: 15
  - Number of ARP Cache entries size: 1024
  - Queues used for DiffServ: 7
  - Number of ACLs (IPv4/IPv6): 100
  - Number of DHCP snooping binding: 8K
  - Number of DHCP static entries: 1024
  - Mean time between failures (MTBF):
    - GS728TS
      - 595,423 hours (~68.9 years) at 25°C
      - 174,070 hours (~20.1 years) at 55°C

- GS728TPS
  - 530,911 hours (~62.3 years) at 25°C
  - 153,809 hours (~17.8 years) at 55°C
- GS752TS
  - 303,220 hours (~35.1 years) at 25°C
  - 102,616 hours (~11.8 years) at 55°C
- GS752TPS
  - 206,539 hours (~23.9 years) at 25°C
  - 67,929 hours (~7.8 years) at 55°C

- **LEDs**
  - Per RJ-45 port: Speed/Link/Activity
  - Per SFP port: Speed/Link/Activity
  - Per device: Power, Fan, Stack Master, Stack ID
  - Per device (for GS728TPS/GS52TPS): LED mode and PoE Max
- **Power Supply**
  - GS728TS
    - AC Voltage: 100-240 V
    - Frequency: 50-60 Hz
    - Amperage (max): 1.4A
    - Max Power consumption: 29.7W
  - GS752TS
    - AC Voltage: 100-240 V
    - Frequency: 50-60 Hz
    - Amperage (max): 1.4A
    - Max Power consumption: 77W
  - GS728TPS
    - AC Voltage: 100-240 V
    - Frequency: 47-63 Hz
    - Amperage (max): 4A
    - Max Power consumption: 236W
    - PoE budget: 192W
  - GS752TPS
    - AC Voltage: 100-240 V
    - Frequency: 50-60 Hz
    - Amperage (max): 8A
    - Max Power consumption: 526.8W
    - PoE budget: 384W

- **Physical Specifications**
  - GS728TS
    - Dimensions: (W x D x H): 440 x 257 x 43 mm
    - Weight: 3.34 kg
  - GS728TPS
    - Dimensions: (W x D x H): 440 x 257 x 43 mm
    - Weight: 3.88 kg
  - GS752TS
    - Dimensions: (W x D x H): 440 x 257 x 43 mm
    - Weight: 4.31 kg
  - GS752TPS
    - Dimensions: (W x D x H): 440 x 310 x 43 mm
    - Weight: 5.48 kg
- **Environmental Specifications**
  - Operating temperature: 32° to 104° F (0° to 50° C)
  - Storage temperature: -4° to 158° F (-20° to 70° C)
  - Operating humidity: 10% to 90% maximum relative humidity, non-condensing
  - Storage humidity: 5% to 95% maximum relative humidity, non-condensing
- **Electromagnetic Compliance**
  - CE mark, commercial
  - FCC Part 15 Class A
  - VCCI Class A
  - EN 55022 (CISPR 22)
  - EN 55024 (CISPR 24)
  - C-Tick
  - CCC
- **Safety**
  - CE mark, commercial
  - CUL 60950 (Listed)/EN 60950 (Low Voltage Directive)
  - CB
  - CCC

System Requirements

- Category 5 UTP Network cables or better
- Network card for each PC
- Network software (e.g., Windows XP®, IE7+, Firefox® 3+)

Warranty

- NETGEAR Lifetime Warranty†

ProSupport Service Packs Available

- XPressHW, Category 2: PRR0332 (3-year next-business day hardware replacement contract)
- OnCall 24x7, Category 2: PMB0332 (3-year Advanced Technical Support contract, including Remote Diagnostics performed by our technical experts for prompt resolution of technical issues, and next-business day hardware replacement)

Package Contents

- ProSafe® Gigabit Stackable Smart Switch GS728TPS, GS728TPS, GS752TS or GS752TPS
- One 2.5 G SFP Direct Attach cable for stacking
- Rubber footpads
- Power cord
- Rack-mount kit
- Resource CD installation guide
- Warranty/support information card

Supported Modules

- AGC761 1m 1G/2.5G Direct Attach SFP Cable
- AGM731F ProSafe 1000BASE-SX SFP GBIC
- AGM732F ProSafe 1000BASE-LX SFP GBIC
- AFM735 ProSafe 100Base-FX SFP LC GBIC

Ordering Information

- **GS728TS**
  - North America: GS728TSB-100NAS
  - Europe: GS728TSB-100EUS
  - Asia/Japan: GS728TSB-100AJS
- **GS728TPS**
  - North America: GS728TPSB-100NAS
  - Europe: GS728TPSB-100EUS
  - Asia/Japan: GS728TPSB-100AJS
- **GS752TS**
  - North America: GS752TSB-100NAS
  - Europe: GS752TSB-100EUS
  - Asia/Japan: GS752TSB-100AJS
- **GS752TPS**
  - North America: GS752TPSB-100NAS
  - Europe: GS752TPSB-100EUS
  - Asia/Japan: GS752TPSB-100AJS

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* 1-year 24x7 Advanced Technical Support includes Remote Diagnostics performed by our technical experts for prompt resolution of technical issues.

† Lifetime warranty for product purchased after 05/01/2007. For product purchased before 05/01/2007, warranty is 3 years.